CSSG TASKING 2006-05

Issued March 6, 2006

Task Title: Assessment of Criticality Safety and Nuclear Data Needs Requiring a

Super-SHEBA Capability

<u>Task Statement:</u> The CSSG is requested to identify essential and optional (i.e. essential capabilities/knowledge for safety/efficiency and optional areas that might be useful) needs in the broad areas of criticality safety support and nuclear data that can only be filled by a 'Super-SHEBA' capability. For each need (essential or optional) identified, a specific DOE program/project/facility that would benefit from the information must also be provided. Such capability will be restricted to pure uranyl nitrate solution experiments, including the ability to perform in burst mode (i.e. prompt critical experiments). It is envisioned that a new 'Super-SHEBA' facility will have the flexibility to tailor experimental vessel(s)/systems to match the needs of the specific experimental program much like the uranium solution experimental program at the Rocky Flats Critical Mass Laboratory.

<u>Task Deliverable</u>: A formal written report to the NCSP Manager.

Task Due: April 30, 2006